

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:	Unknown)
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Filing Date:	Unknown)
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Priority Date:	22 September 2000)
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Applicants:	NEWTON, Mark)
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For:	BROADCAST DATA RECEIVER AND METHOD OF USE THEREOF)
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PRELIMINARY AMENDMENT

Director For Patents
Box: New Application
Washington, D.C. 20231

Dear Sir:

This is a preliminary amendment to the enclosed application entitled "Broadcast Data Receiver and Method of Use Thereof" claiming priority to British Patent Application No. 0023267.8 filed 22 September 2000 and British Patent Application No. 0102041.1 filed 26 January 2001.

In the Specification:

Please amend the specification as follows:

Page 1, after the title, insert the following headers and paragraph:

--CROSS-REFERENCE TO RELATED APPLICATION

This application claims priority to British Patent Application British Patent Application No. 0023267.8 filed 22 September 2000 and British Patent Application No. 0102041.1 filed 26 January 2001.

BACKGROUND OF THE INVENTION-

Page 1, line 13 after "air", insert --Moving Picture Expert Group--; line 19, change "colour" to --color--.

Page 2, line 3 before "PAL" insert -Phase Alternation Line-; same line, change "PAL" to --(PAL)--; line 4, change "colour" to --color--; same line, change "synchronisation" to --synchronization--; line 5, after "BDRs" insert --)--line 9, change "colour" to --color--; line 13, after "inaccurate" insert --Pulse Width Modulated--; line 15, change "colour" both occurrences to --color--; lines 21, 25 and 27 change "colour" to --color--.

Page 3, before line 3, insert the Header:

--SUMMARY OF THE INVENTION--

Page 3, line 9, change "characterised" to --characterized--; line 14 change "colour" to --color--.

Page 4, line 7, change "minimise" to --minimize--; line 20 after "or" insert --Electrically Erasable Programmable Read-Only Memory--; same line, change "EEPROM" to --(EEPROM)--.

Page 6, line 18, change "colour" to --color--.

Page 7, before line 19, add the Header:

--DESCRIPTION OF THE PREFERRED EMBODIMENTS--.

Page 9, line 4, change "colour" both occurrences to --color--.

Page 10, lines 9, 11, 21, 23 and 32, change "colour" to --color--.

Page 11, after the last line, insert the following paragraph:

--While the invention has been described with a certain degree of particularly, it is manifest that many changes may be made in the details of construction and the arrangement of components without departing from the spirit and scope of this disclosure. It is understood that the invention is not limited to the embodiments set forth herein for purposes of exemplification,

but is to be limited only by the scope of the attached claim or claims, including the full range of equivalency to which each element thereof is entitled.--

IN THE CLAIMS:

1. (Amended) A method for the production of a pseudo stable reference control for the reliable generation of composite video signals from a broadcast data receiver [(BDR), said BDR] receiving video, audio and/or auxiliary data from a broadcaster, said [BDR] broadcast data receiver having storage means in which to store data [and characterised in that], said method includes the steps of:

 said [BDR] broadcast data receiver producing a pseudo stable reference by extracting/deriving [one or more values] at least one value from frequency information embedded in incoming broadcast data; and

 using said pseudo stable reference to control the frequency of a [VCXO] voltage controlled crystal oscillator in [the BDR] said broadcast data receiver, thereby allowing accurate [colour] color sub-carrier frequency generation for the generation of a video output via [the BDR] said broadcast data receiver, or a [VCR] videocassette recorder communicating with said [BDR] broadcast data receiver.

2. (Amended) A method according to claim 1 [characterised in that the] wherein said derived pseudo stable reference is stored in said storage means and updated at pre-determined time intervals.

3. (Amended) A method according to claim 1 [characterised in that the] wherein said storage means is in the form of a hard disk drive.

4. (Amended) A method according to claim 1 [characterised in that the BDR] wherein said broadcast data receiver is provided with micro-processing means which [can] may extract the frequency information embedded in the incoming data streams and produce a suitable [PWM] pulse width modulated signal to control the frequency of [the VCXO] said voltage controlled crystal oscillator.

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5. (Amended) A method according to claim 1 [characterised in that the one or more values are] wherein said at least one value is an average value[s] of stable frequency references embedded in incoming data.

6. (Amended) A method according to claim 5 [characterised in that the one or more values are] wherein said at least one value is average [PWM] pulse width modulated readings.

7. (Amended) A method according to claim 6 [characterised in that the] wherein said average [PWM] pulse width modulated readings are extracted/recoded during the phase locked loop of software routine of the micro-processing means.

8. (Amended) A method according to claim 7 [characterised in that] wherein the phase locked loop software compares a 90KHz stable clock reference from the incoming data stream to the local frequency of [the VCXO] said voltage controlled crystal oscillator.

9. (Amended) A method according to claim 5 [characterised in that the] wherein said average stable frequency reference values include the mean or median average readings thereof.

10. (Amended) A method according to claim 6 [characterised in that the] wherein said pseudo stable reference is the average of the current [PWM] pulse width modulated value, the most recent [PWM] pulse width modulated value stored in memory in [the BDR] said broadcast data receiver and the oldest [PWM] pulse width modulated value stored in memory in [the BDR] said broadcast data receiver.

11. (Amended) A method according to claim 1 [characterised in that] wherein timer means are provided in [the BDR] said broadcast data receiver to allow a pre-determined time period to pass before the micro-processing means extracts/records said [one or more values] at least one value from said incoming data stream.

12. (Amended) A method according to claim 11 [characterised in that the] wherein said timer means is a real time clock embedded in the incoming data.

13. (Amended) A method according to claim 11 [characterised in that the] wherein said timer means is information derived from [DVB] digital video broadcast service information.

14. (Amended) A method according to claim 1 [characterised in that] said one or more values are wherein said at least one value is derived by locking the frequency of [the VCXO] said voltage controlled crystal oscillator in [the BDR] said broadcast data receiver to an off air data

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stream and using the frequency information embedded in said off air data stream as [the] said pseudo stable reference to control the frequency of [the VCXO] said voltage controlled crystal oscillator.

15. (Amended) A method according to claim 14 [characterised in that] wherein if there is a choice of digital or analogue broadcast signals from which [the one or more values can] said at least one value may be derived therefrom, [the BDR] said broadcast data receiver derives said [one or more values] at least one value from an analogue data signal.

16. (Amended) A method according to claim 14 [characterised in that] wherein locking of the frequency of [the VCXO] said voltage controlled crystal oscillator within [the BDR] said broadcast data receiver to an off air data stream is undertaken during or at the same time as playback of data stored in [the BDR] said broadcast data receiver and/or [VCR] videocassette recorder.

17. (Amended) A method according to claim 14 [characterised in that the BDR] wherein said broadcast data receiver records and stores [one or more] at least one extracted stable frequency reference value[s] from the off air data stream at pre-determined time intervals, so that if locking of [the BDR] said broadcast data receiver to the off air data stream is lost during playback of stored data from [the BDR] said broadcast data receiver and/or [VCR] videocassette recorder, [the BDR] said broadcast data receiver uses the last recorded stable frequency reference value to continue playback of the stored data.

18. (Amended) A method according to claim 17 [characterised in that] wherein once locking of [the BDR] said broadcast data receiver to the off air data stream is resumed, the last recorded stable frequency reference value is discarded and the stable frequency value taken from the off air data stream is used.

19. (Amended) A method according to claim 14 [characterised in that the BDR] wherein said broadcast data receiver is provided with means to watch and record different television channels simultaneously and when [the BDR] said broadcast data receiver is recording data from [one or more] at least one channel[s, the BDR] said broadcast data receiver switches the front end of the record channel[(s)] off, extracts the stable reference value[(s)] from the data stream of the channel being watched and uses the stable reference value to lock the watch and record channels together.

20. (Amended) A method according to claim 19 [characterised in that] wherein one of the watch and the record channels is an analogue channel, and the stable frequency value from this channel is used to lock the watch and record channels together.

21. (Amended) A method according to claim 19 [characterised in that the] wherein said record channel(s) include[[]s] any or any combination] at least one from the group consisting of a channel from which data is being recorded onto a [VCR or BDR] videocassette recorder or broadcast data receiver, a channel being used to play back video data from [the BDR] said broadcast data receiver, or a recording mode in which digital data is being copied from [the BDR] said broadcast data receiver onto a [VCR] videocassette recorder.

22. (Amended) A broadcast data receiver, said [BDR] broadcast data receiver comprising:
means for receiving video, audio and/or auxiliary data from a broadcaster[,]; [said BDR
having]

storage means in which to store data ;[and characterised in that the BDR is provided with]
means for producing a pseudo stable reference by deriving/extracting [one or more
values] at least one value from frequency information embedded in incoming data[,]; and
said pseudo stable reference [is] being used to control the frequency of a [VCXO] voltage
controlled crystal oscillator in the [BDR] broadcast data receiver, thereby allowing the generation
of an accurate sub-[colour] color frequency for the playback of stored data from [the BDR] said
broadcast data receiver and/or a [VCR] videocassette recorder.

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23. (Amended) A broadcast data receiver according to claim 22 [characterised in that]
wherein said pseudo stable reference is used when [the BDR and/or VCR] at least one of said
broadcast data receiver and videocassette recorder is deriving video data from said storage
means.

24. (Amended) A broadcast data receiver according to claim 22 [characterised in that the one
or more values are] wherein said at least one value is an average value[s] of stable frequency
information embedded in incoming data.

25. (Amended) A broadcast data receiver according to claim 22 [characterised in that the one
or more values are] wherein said at least one value is provided by locking the reference from [the
VCXO] said voltage controlled crystal oscillator within [the BDR] said broadcast data receiver

to an off air data stream, and [one or more] at least one stable reference value[s] embedded in said off air data stream [are] is used to generate a pseudo stable reference control.

REMARKS

Attached are the marked up versions of the claims and new paragraphs as required in Section 1.121(4) (ii).

The application should now be in condition for examination, which is respectfully requested.

Respectfully Submitted

HEAD, JOHNSON & KACHIGIAN

Dated: 21 September 2001

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